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THE AUSTRIAN ECONOMISTS AND THEIR VIEW OF VALUE.

THE Ricardian doctrine of value has had its share of the general sifting of cardinal principles which has been at work in England and abroad for the last two generations. No one would now agree with Mill that there is nothing in the laws of value which remains for any future writer to clear up.* In England, the criticisms of Jevons and others have made a deep impression. The positive doctrines of Jevons have not had an equal success, but they have fared somewhat better on the Continent; and, in Austria, a body of doctrines substantially identical with those of Jevons have become the tenets of a strong school, which has made Austria more prominent in economical discussion than she has been for at least a century. There seems to be something of the same intellectual rivalry between Austria and her German neighbors as between America and England.

* *Political Economy*, Book III. chap. i. § 1.

Karl Menger,* Friedrich von Wieser,† and Eugen von Böhm-Bawerk ‡ are the leading writers of the school. Their German forerunners are chronicled by Böhm-Bawerk, as their English by Jevons; but, till Jevons and Menger, the doctrines now to be described were hardly before the public in either country.

Jevons seems to have had priority in time, having given his views to the British Association in 1862.§ His complete exposition, however, first appeared with his *Political Economy* in 1871; and in that same year Menger published his *Grundsätze der Volkswirthschaftslehre*, in which he expounded the doctrine of value as Jevons had expounded it.

The Austrian writer seems to have owed nothing to the English.‖ Internal evidence alone would show that they were quite unconscious of each other's works. Their starting-points and their emphases are quite different. Jevons is suffering from reaction against Ricardo and J. S. Mill; and he lays most stress on his "General Mathematical Theory of Political Economy," or, in other words, his application of mathematical formulæ to the Benthamite Utilitarianism, upon which Ricardian economics had been largely founded.

Menger, on the other hand, is making stand against a very different enemy, the German historical school, whose methods had departed only too far from Ricardo; and he recurs to a deductive method based (as Ricardo's professed to be) on known principles of nature and

* *Grundsätze der Volkswirthschaftslehre.* 8vo. pp. 299. Vienna, 1871.

† *Ursprung und Hauptgesetze des wirthschaftlichen Werthes.* 8vo. pp. 228. Vienna, 1884.

‡ Two papers in the *Jahrbücher für Nationalökonomie*, entitled *Grundzüge der Theorie des wirthschaftlichen Güterwerthes:* Theil I., *Die Theorie des subjektiven Werthes*, in vol. xiii., N. F. (1886), p. 1; Theil II., *Die Theorie des objektiven Werthes*, *ibid.*, p. 477.

§ His paper is printed in the *Journal of the Statistical Society*, June, 1866, p. 282.

‖ Of his followers, Wieser shows most signs of assiduous study of Jevons.

human nature, while following an apparently new path. He and his followers may occasionally make use of mathematical illustrations, but the important point with them is always what we may call (*pace* Böhm-Bawerk) the psychological analysis which is distinctive of their doctrine of value. Menger's somewhat heated controversy with Schmoller on the Methodology of economics need not occupy us here, though it serves to throw light on the mental attitude which led him to his new economical starting-point.*

Turning now to the "National Economy" of Menger, we find him at the outset assigning to economics the investigation of certain principles, fixed independently of individual will, which determine what makes a thing "useful," a "good," and a thing "valuable" to me, and under what conditions an economical "exchange" of goods can take place, as well as under what conditions prices move up and down. Ricardo might possibly have used the same language, but his difference from Menger appears as soon as the principles are examined in detail.

Ricardo has given a theory of value that concerns only commercial values. Like Adam Smith, he identifies "value in use" with utility; and, though he describes it as absolutely essential to "value in exchange," he treats it as a mere preliminary *conditio sine qua non*, which explains no distinctive feature of value in exchange. The specific cause of value is regarded as one of two alternatives:† it is either the scarcity of the article in question or the quantity of labor required to obtain it. There are articles (he says) whose value is derived from scarcity alone, and which have "a value wholly independent of the quantity of labor originally necessary to produce them and varying with the wealth and inclina-

*Compare *Quarterly Journal of Economics* for July, 1887, pp. 503, 504; *Jahrbücher für Nationalökonomie*, viii., N. F. (1884), p. 107 *et seq.*

†His illustrations show that he means one of two alternatives, and not a combination of two elements.

tions of those who are desirous to possess them." * He dismisses this kind of value as curtly as he dismissed value in use, and confines his inquiries to the exchange value of such goods as can be multiplied by labor or (to use a common phrase) are "freely produced."

To Menger and his followers, nearly every step in this proceeding is unsatisfactory. In the first place, they deny † that value in use is convertible with utility. They contend that the two are related as actuality to possibility. Utility means that an article is a possible cause of the satisfaction of my want; value, that it is the indispensable condition on which that satisfaction actually depends. All water and food are useful to a man; but, where both are present in abundance, they have no value for him, not even value in use: it is only when the satisfaction of his hunger *depends* on a particular loaf that that loaf will have value for him. The ordinary symptoms are that in the former case he is willing to waste, but not in the latter. In fact, utility and scarcity, the conjoint conditions of value in exchange in the case of *one* of Ricardo's two species of that phenomenon, are conjoint conditions of that value in use which is antecedent to both of them. Value to me means "importance for my welfare"; ‡ and a thing has no importance for my welfare if, in the first place, it can satisfy no want, and if, in the second, it exists with others like it in such abundance that I cannot consider myself absolutely dependent on it alone for my satisfaction, having all its fellows to serve my turn.

Differing thus at the outset from Ricardo's view of value in use, the Austrian economists take a different

* *Political Economy and Taxation*, chap. i.

† With Schäffle, in the treatise quoted below, *Ethische Seite*, p. 10.

‡ "*Bedeutung*," a phrase made current in this connection by Schäffle, the critic, as well as, in a sense, the forerunner of the Austrian school. See, *e.g.*, his *Ethische Seite der nationalökonomischen Lehre vom Werthe*, Tübingen, 1862. Compare his *Mensch und Gut*, 1861.

view of its place in economical investigation. They believe that, if Ricardo had paid due attention to value in use, or, as they variously call it, "subjective value," or "personal value,"* he would not have found his treatment of value in exchange encumbered with so many difficulties, and he need not have banished scarcity value to the limbo of economical anomalies.

As Jevons, in opposition to Mill, insists that the whole theory of Political Economy must depend on a correct theory of consumption, so the writers of this school contend that the whole theory of value in exchange depends on a correct theory of value in use. "A national economics that leaves out the theory of subjective value is built on air." † One of them, indeed (Wieser), confines his main work entirely to this form of value.

Let us look at the manner in which they rear the building on this foundation. The difference, they say, between goods, or utilities, and economical goods, or values in use, being the difference between mere power to serve us and actual indispensableness to our service, is clearly a question of quantity. How, then, do we explain the paradox that such indispensable things as air and water have usually no value? The answer is that, though indispensable as a total, they are so unlimited in quantity that, in normal circumstances, no particular sample of them has any importance for our welfare. We must avoid the *fallacia sensus compositi et divisi.* Each part by itself is not indispensable. On the other hand, if we decrease the largeness of the whole, we bring the parts nearer and nearer to value till they actually reach it. We must, in all cases, regard ourselves as dealing with concrete wants and quantities, and not with generic or abstract; and we must in each given case be certain what our concrete facts are supposed to be. To a miller,

* "Subjective" value is a phrase of Neumann's adopted by Böhm-Bawerk. Wieser prefers "personal."

† Böhm-Bawerk.

a glass of water from his mill-stream has no value; for, if he has one dashed from his lips, he can get others from the same quarter. But let his total mill-stream be the concrete quantity considered, his total mill-stream has a great value to him, as he quickly shows, if his neighbor tries to cut it off from him. Yet, if mill-streams were as plentiful to him for working his mill as glassfuls of water from his own mill-stream are for quenching his thirst, he would attach as little value to the one as to the other. So air to a diver is to be had in limited quantities, and has value. To the ordinary man, it is to be had in unlimited quantities; and the particular quantity of it which he breathes is not indispensable (for he can get others like it), and has therefore no value. In other words, the considerations applied by Ricardians to one case of value in exchange can be shown to apply to every case of value in use.

In the next place, still confining ourselves to value in use, we ask ourselves what are the degrees of value, and why one thing is recognized as more important to my welfare than another. The psychologists may settle why it is that men identify their interests with material things, and associate the satisfaction of a want (which is the real aim) with the material goods or outward acts (which are only the means of its satisfaction). The economist assumes the fact of identification, and considers the various forms it may take. In doing so, he meets with *contradictions économiques* similar to the one about air and water, and recurring in economical text-books with the same tedious frequency as Cæsar and Caius in formal logic.

Supposing that diamonds and loaves of bread are both important to my welfare, inasmuch as both of them satisfy my wants: are not the two wants very different in kind, and is not the latter so much more important than the former that the loaves have a higher value in use than

the diamonds, although the diamonds have the greater value in exchange? Without dealing with exchange at all at this stage, we can answer (1) that the loaves have not really, except in an absolute dearth, so great a value in use as the diamonds; and yet (2), of the two wants concerned with these two several objects, the want of food is undoubtedly more vital than the want of jewelry. We have therefore to consider in each case not only whether an article is or is not indispensable to the satisfaction of a want, but whether the want in question is high or low in our own particular scale of wants. For every man arranges his wants consciously or unconsciously in a certain scale of importance, and decides that some must be satisfied before others. Not only so, but he also arranges what Jevons would call the "increments" of the satisfaction of each of them in another scale, and judges that the first draught of satisfaction of the highest order of wants must come before any satisfaction of lower orders, while, at the same time, the lower orders may have a claim above the latest increments of the satisfaction of the higher. Food may be prized more highly than tobacco; but the latter may be prized more highly than a fourth meal in the day, pleasant, but not needful for health and energy, and not so pleasant as the pipe. Most wants are satisfied piecemeal, and there is always a point where satisfaction ceases and satiety supervenes. Hence, the scale of degrees acts in combination with the scale of kinds of wants; and both of them are influenced by the individual character and standard of living and aim in life, as well as by general laws of human nature. The two scales may be represented in a diagram, which is taken with some slight alterations from Menger and Böhm-Bawerk,* and can be adapted and amplified at will by the reader: —

*See, *e.g.*, *Jahrbücher*, xiii., N. F., p. 25. *Cf.* Jevons's *Political Economy*, chap. iii.

Degree.	I. *Food.*	II. *Clothing.*	III. *Lodging.*	IV. *Smoking.*
First,	Necessary for life.			
Second,	Necessary for health.	First suit, necessary.		
Third,	Agreeable.	Second suit, convenient.	1 room.	
Fourth,	Less keenly agreeable.	Third suit, desirable.	2 rooms.	4 pipes a day.
Fifth,	Still less keenly agreeable.	Fourth suit, not unacceptable.	3 rooms.	8 pipes a day.
Sixth,	Satiety.	Fifth suit, satiety.	4 rooms, satiety.	Satiety.

If the "subject" concerned in the above table were forced to retrench, he would encroach on the lowest lines of the latest columns first, or else the table has been inaccurate. As he was more closely pressed, he would ascend from right to left, till, if he were in desperate straits, all would go rather than the supply of the first degree of Want I. The arithmetic of the table would not bear to be pressed. The difference in degree of importance between one meal when it is the only accessible one and one meal when it is *any* one of five alternate meals is not as 5 to 1, but as infinity to 1. When we draw near to absolute necessity, the increase in importance (as has been noticed by economical observers from Gregory King down) is geometrical rather than arithmetical. Even in the case of what is not a physiological or even a social necessary of life, but is only made a necessary by the conception which a particular individual has formed of the ends of his own particular life, the importance of the object often increases with the decrease in its quantity in far greater than arithmetical proportion. The importance of a single available specimen of a particular Greek coin will to a collector be far more than double the importance of two specimens.

We become conscious of the gradations of our own scale of wants most clearly when we are either adding to our stock of goods or losing part of it, for an addition or subtraction might possibly affect the whole scale of wants, and would certainly affect parts of it. Looking further at our proceedings on such an occasion, we find that most of our stock of goods can be used to satisfy more than one kind of want. We may use corn for our own food, or we may feed our horses with it, or make spirits from it. How are we to judge what is the importance, or, in other words, the value, that is attached to an article having these alternative uses? The answer is (and it brings us to the central point of the theory): We judge of the value a man attaches to an article by the *lowest* use to which he is willing to put it. If he would light the fire with mahogany wood, the mahogany to him has simply a fire-lighting value; or, if he would feed horses with his corn, he values corn at its horse-feeding value. He feeds himself with it, too; but he has enough of it to make any particular quantity of it only of the horse-feeding degree of importance to him. We judge that such and such a use is the *lowest* from the fact that, when the stock of goods is decreased, that use is first forgone. For example, if the supply of corn were cut short, the horses would lose first, or (to take the other case) the mahogany would cease to be used as firewood. The value of an article, therefore, is to be judged in every case by the importance of the least important want that a man would actually satisfy by means of the said article, for only to that want, and not to the others, is that article an indispensable condition of satisfaction. "Subjective value" depends not on utility, but on "final utility" (*Grenznutzen*),—the lowest or least of the actual utilities rendered to us by the valuable article.

The theorists with whom we are dealing explain (one of them, Böhm-Bawerk, with peculiar care) that the

"dependence" is not to be taken as a fact of causation, but as an ascertained fact of interpretation. Looking on any completed act of valuation, we find that, consciously or unconsciously, it involves this regard to the final utility. On the other hand, when the action of an economic agent is viewed, not as completed, but as still in prospect, it is not the minimum, but the maximum, of utility that we suppose to be kept in view by him. The act completed, however, we ask, What is his actually lowest maximum? and that is the final utility now under consideration.

Cases of daily life at once occur to the mind, which this simple theory seems to leave unexplained. Böhm-Bawerk, whose skill in economical casuistry * is well known to readers of his book on *Theories of Interest*,† makes a brave attempt to clear up the difficulties. First of all, he says, we must not suppose the doctrine to mean that the final utility of a given whole is determined by the utility of its least useful part.‡ The value of the *whole* as a whole is determined by the final utility of the *whole*, and the value of the *parts* as such (*i.e.*, not as conjoined, but as separate and alternative pluralities) is determined by the final utility of the *parts* as such. For example, if we ask ourselves what is the value of a skin of water in the desert to a traveller there, whose whole water supply it is, the answer is that the final utility of the whole skin — all or nothing — may be infinite. It may mean life or death to the man. He would not sacrifice it for any consideration. But consider it not as one and indivisible, but as a collection of separate cupfuls of water, then the value of each cupful, as such, is determined by (which means is judged from) the worst use to which the traveller is ever willing

* His own phrase.

† *Kapital und Kapitalzins.* Band I., *Geschichte und Kritik der Kapitalzins-Theorien.* 8vo. pp. 510. Innsbrück, 1884. This volume is at present (August, 1888) in course of being translated into English by Mr. W. Smart, of Glasgow.

‡ An interpretation countenanced by the language of Wieser and Jevons.

to put a cupful. If this be washing, then the value of each part is washing value: whereas the value of the whole as a whole is not washing value, but life or death value. In the second place, we are told that, though the final utility of the parts does not determine the value of the whole, yet it is rarely the case with any particular part that its value is settled by its own final utility; or else we should judge the cupful that quenched thirst in the desert to be infinitely more valuable than the cupful that washed hands or clothes. In all the parts but one, the final utility that fixes their value for them is "an alien utility," — the final utility, not of themselves, but of some other part, which in the above instance is the washing cupful. In the third place, what is true of similar specimens of the same kind of goods (*e.g.*, cupfuls of water) is true of goods that are replaceable at the sacrifice of a substitute of a different kind, whether in the way of exchange or in a more direct way. The final utility determining its value is in that case again "an alien utility," — the utility of the worst used substitute. If I lose my coat and do not replace it, then its final utility has been also its total utility, its worst use was also its best. But, if I replace the lost coat by giving up something else to purchase a new one or to wear *as* a coat, then the coat's value was not its total, but its final utility; and the latter itself is not its own, but the final utility of the means of replacement (money or otherwise).

So far as we have followed our authors, we should infer that final utility was an analysis of the nature rather than of the causes of value. It states the fact itself rather than the reason for the fact. From their own description, value appears as the effect of two causes,— utility and scarcity. The value of a shilling to me depends on its final utility in the sense that you only know its value to me, if you know its final utility to me. In other words, its value *means* its final utility. There still remains the

question,—*why* its final utility is no more and no less, *why* I would use the shilling for what turns out to be the lowest purpose for which I would ever use it, *why* do I stop so soon, and not go to a lower purpose, or *why* do I not stop sooner, and not go so low? The answer is that the limit is fixed for me by my wants and my resources, taken together and in relation to each other; in other words, by the thing's utility and (in relation to my resources) its scarcity. My shillings are so comparatively abundant that I can satisfy my wants thus far and no farther by means of them. The circumstances of modern industrial society, it is true, introduce complications into these relations. The scarcity of an article in relation to me is determined not only by the extent of my resources, but by the resources and "effective demand" of other people, by the "supply and demand" * of the goods in question over society at large. In ordinary cases, the said "supply and demand" affect the prices of goods, and therefore the extent of the deduction to be made from the individual's store, when he replaces a lost article by a substitute. On the other hand, the Austrian writers justly contend, if it were not for the varying "scales" of wants and the correspondingly varying "subjective" values attached by different people to the same article, exchanges would not take place, and prices would not be settled as they are now. "Objective value in exchange" is the resultant of separate subjective valuations of the competing individuals in a commercial society.

It may confidently be said that, unless the doctrine of "subjective" value is made to throw light on value in exchange, economists would not care to linger over it, as, after all, it is the social relations of human beings in the present industrial system that are of deepest interest to students of economics. Wieser's book, on its first appearance, was severely handled by Dietzel,† because the au-

* Expressions that are explained below.

† See *Jahrbücher*, xi., N. F. (1885), p. 161.

thor did not show the application of his theory to the world with which ordinary economists had always dealt. Professor Böhm-Bawerk has, with great courage and ability, endeavored to remove this reproach from the school to which he belongs; and his treatise on Objective Value must be almost our sole guide in the following exposition.

"Objective value," as he defines it, is by no means identical with value in exchange. Indeed, the latter becomes, from one point of view, a case of subjective and not of objective value. We may regard it as the importance to my welfare of an article exchanged by me instead of consumed by me. This close contact of "objective" with "subjective" value need not surprise any one who remembers the general impossibility of keeping these two philosophical notions, subjectivity and objectivity, out of each other's reach. But, for economical purposes, objective and subjective values may be kept apart without much practical difficulty. Objective value, according to our author, is best defined as simply the power of a commodity (considered out of relation to any particular subject) to produce certain effects. Firewood has heating value, food nourishing value; and (if the particular power conferred is power to exchange for other articles) a commodity may have purchasing value. The said purchasing value or purchasing power is therefore only one species out of many belonging to the genus Objective Value. It is economically the most important, and is practically the only one discussed by Böhm-Bawerk under this head.* He rightly refuses to confine the term "value" to one of the two main kinds, objective and subjective, or to attempt to prove that the two are forms of one and the same kind of value. He accepts both senses, because both are deeply rooted in the common language of men; and he tries to

*Others are, *e.g.*, letting value, hiring value, productive value (productiveness).

avoid ambiguity by means of the distinctive philosophical epithets, subjective and objective. It seems, on the whole, as precise a distinction as can usually be procured in economics, though, to English readers at least, the terminology would be a serious stumbling-block.

Value in exchange being first defined as the power one thing has to fetch others in exchange, the next preliminary definition is that of Price, which is said to be not "value expressed in money," but the actual equivalent goods (whether money or not) given in exchange. The *value* (in exchange) of a coat is thus its power to exchange, say, for two pairs of boots or for £4 in money. The *price* of the coat is, then, the two pairs of boots or the £4 in money. The distinction, it may be admitted, is intelligible, and can be preserved with a very fair amount of consistency. We are, however, at once led by it face to face with the familiar question of economical text-books. How is the price itself explained? The answer is that under free competition of buyers and sellers, and on the supposition that each of them is seeking his own greatest immediate advantage, the price is determined by the subjective value of the article concerned to the least strong * of the actual sellers and the least strong of the actual buyers. The case is analogous to that of subjective value, where the criterion, too, is not the worst of all possible, but the worst of all actual uses. A strong seller, again, is one who attaches comparatively little value to his article, and can therefore come a long way down or let it go for comparatively little. A strong buyer is one who attaches much value to the article he would buy, and can therefore go a long way up or give a great deal for it; and the least strong of the actual sellers and least strong of the actual buyers determine the selling price.

The normal case may be illustrated by the subjoined

* *Tauschfähigkeit*,—strength in exchanging,—a notion first fully treated by Menger, is much used by Böhm-Bawerk.

diagram,* where the articles offered are horses, all supposed of the same quality: —

WOULD-BE BUYERS. (Subjectively)				WOULD-BE SELLERS. (Subjectively)			
A^1	Values a horse at		£60	B^1	Values his horse at		£20
A^2	"	"	56	B^2	"	"	22
A^3	"	"	52	B^3	"	"	30
A^4	"	"	48	B^4	"	"	34
A^5	"	"	44	B^5	"	"	40
A^6	"	"	42	B^6	"	"	43
A^7	"	"	40	B^7	"	"	50
A^8	"	"	36	B^8	"	"	52
A^9	"	"	34				
A^{10}	"	"	30				

There are only five pairs that can exchange at all with economical advantage, and these are the five strongest buyers and sellers. The price is determined by the valuations of the least strong of these; namely, A^5 and B^5. B^5 can take anything over £40. A^5 can give anything under £44. The price will be between the two figures.

An objection occurs. If the price is determined by the buyer's estimate of the article's value in use,† and if that, in the normal case of replacement by substitutes, depends on the buyer's estimate of the value in use to him of the means of replacement, does not this mean that the market price depends on the market price? The answer given by our author is as follows: When the buyer comes forward to get his substitute, he carries in his mind a presumption as to the state of the market. He values his coat at a certain low figure, because he has a certain presumption as to the scarcity of coats. He has presumed that substitutes can always be got at that presumed figure. The said presumption has determined his use and abuse of his coat all along; and, till he comes to the market, it

* Cf. Böhm-Bawerk, *Jahrbücher*, xiii., N. F., p. 495.

† It must be said, once for all, that Böhm-Bawerk dislikes this term; but it has been kept as the most familiar English equivalent for the *quasi*-philosophical "subjective value."

is perfectly rational. But in the market itself he must not presume. He must see for himself how the supply and demand actually stand, and raise or lower his estimate accordingly.

What, then, is the meaning of the "supply and demand"? These are terms for which Böhm-Bawerk has little respect, regarding them as the natural refuge of confused thinkers; but, since they are rooted in language, they must be explained. To explain them, he gives an account of the real reasons why the "subjective valuations" of what he calls the "terminal pair" * in the above diagram are at the height assigned. The said height is a result, *first*, of the numbers of the would-be buyers; *second*, of the degree of value these would-be buyers attach to the article concerned; *third*, of the numbers of would-be sellers; and, *fourth*, of the degree of value *they* attach to the article they would sell. Again, in the "degree of value" so specified is involved a comparison between the article concerned and the other article (say money) which is to constitute the price of it. If a buyer is said to value a horse at £40, this means that one horse has more importance for his welfare than forty sovereigns. It is a comparison of the two, horse and money, that determines the maximum amount of his offer; and, as the same is true, *mutatis mutandis*, of the seller, we must add to the above four reasons two more, the value of the *price* to the buyer and the value of the *price* to the seller.

But from the whole of this statement it is clear that two-thirds of the conditions of objective value depend on a comparison between wants and their means of satisfaction † over society as a whole. The old doctrine that "prices are regulated by the relation of supply and demand" was (we are told) not false, if the terms were un-

* *Grenzpaar*, on the analogy of *Grenznutzen*, which for its part may be translated either final or terminal utility, both terms used by Jevons.

† *Bedarf und Deckung.*

derstood to include not only the number of articles offered and desired, but the various motives influencing the buyers and sellers respectively. It is when demand and supply are both taken as quantities, and the price is said to depend on the suppliers and demanders agreeing to supply and demand the same quantity,* that the formula is wrong; for the height of the price depends not only on the *quantities* offered and demanded, but on the eagerness of the sellers and buyers. So, also, demand is often divided into effective and ineffective; but this is only right if it is remembered that "ineffectiveness" includes want of will as well as want of power. The demanders excluded from the fixing of the price are those that are not prepared to pay a certain price, either because "their poverty and not their will consents" to their withdrawal or because their notions of the subjective value of the article to them do not allow them to pay the price. Intensity of desire, too, can be recognized as a condition of a strong demand only if qualified in a similar way by the double limitation of resources and of standard of living,—in fact, if it is made as much a matter of will-ing as of wish-ing.

It is, however, in regard to supply that the most burning questions arise. Ricardo hardly allowed demand to influence price at all. When we ask on what depends the lowest figure at which the supplier is prepared to sell his ware, we are told by the supporters of the ordinary orthodox doctrine that (in addition to the value, for the seller, of the article he is selling, and the value, for the same seller, of the article, usually money, for which he is offering it) we must take into account the cost of production. But (according to our authors) the connection of cost with price is not to be found in any influence of the former on the decision of the supplier to sell or not to sell at a given minimum price. He will not sell for less than the article

*Mill, Book III. chap. ii. § 3: "The ratio intended is that between the quantity demanded and the quantity supplied." The next paragraph (§ 4) is in greater agreement with Böhm-Bawerk.

is (subjectively) worth to him; but he may and often does sell it below its cost, however reluctantly. The real connection between cost and price is the effect of cost on the *number* of articles produced. The law of cost is not to be opposed to the law of supply and demand, as if they were rivals on equal terms. Cost is only intelligible in relation to supply and demand, and in a very subordinate relation. The law of cost is a particular law of supply: it formulates the conditions of the supply, not of all articles, but of those that are "freely produced."

The discussion has reached a point where it has more than a mere academic interest; and no apology need be made for a somewhat full statement of the application of the doctrine of the Austrian school to the special questions of cost and the means of production. These questions come up first of all (in the writings before us) under the head of Subjective Value, though they are most familiar in ordinary economical discussions in connection with Exchange and Distribution. We are told that, to get a clear view of the situation, we must follow Menger in arranging the means of production according to their nearness to their final products. Let us call these last goods of the "first rank" (say, the finished loaf); goods one step removed, goods of the "second rank" (say, bread a-baking in the oven); another step removed, goods of the "third rank" (the flour in the mill); and so on till we get to the farthest traceable ranks (the elements from which the crops in the field are derived). The instruments used in the various ranks are (we suppose) to be ranked according to their respective goods, though it is materials alone that are mentioned by our author. The water-wheel, as affecting goods of third rank (grain becoming flour), would be itself of third rank. The description given by Menger * of capital as "nothing but a total of

* See *Volkswirthschaftslehre*, pp. 127, seq. But in his article on "Capital" in the *Jahrbücher*, July, 1888, Menger desires to confine the term Capital to

complementary goods of higher rank" (*i.e.*, of a rank remote from the finished article) now becomes intelligible.* But, as to the question of cost, we want to know what determines (*a*) the subjective and (*b*) the exchange value of these remote means of production, whether instruments or materials. Now, on the principles of the school, the subjective value of these must mean, as subjective value means in all other cases, that they are an indispensable condition of my satisfaction, and thereby have importance for my welfare. In their case, it is true, they are a condition of a condition; but the indirectness does not alter the fact. "Prædicatum prædicati prædicatum subjecti."

Let the final product be called A, and its means of production G^2, G^3, G^4, in order of remoteness. Let us assume for simplicity that these means of production are concerned only with this one article, and have no collateral or by-products. On what does the subjective value of each member of the series depend? The value of the finished article (or A) is determined by its final utility. As to the article of the second rank (G^2), if it were absent, we should lose the finished article (A) itself, and with it its final utility. In other words, the want satisfied by A depends, not only on A, but on G^2; and, as G^2 depends on G^3, A depends on G^3, and for a like reason on G^4. In other words, all the successive and co-operating means of production, through all ranks of the series, are conditions of the final utility of their ultimate product, the article to be consumed. It follows (1) that the value of all members of the series is in principle one and the same; (2) that greatness or smallness of value is fixed, *in the last resort*, by the finished article's final utility; and (3) that it is fixed, *in the first instance*, for each member by the member directly succeeding it, or,

"money devoted to increase of income," and to use "means of production," as the least ambiguous term, in such investigations as the one now before us.

*See Böhm-Bawerk's *Kapital und Kapitalzins*, i. pp. 6, 256, 257.

in other words, produced by it. In practice, men do not refer to the last so much as to the first instance. They often take the former for granted on the strength of the commercial knowledge of themselves or others. A timber merchant, when he is considering what is the value to him of wood for cask staves, does not trouble himself about the ultimate destiny of the staves, but only about the quantity of them he can make out of a given quantity of wood, and for how much, when made, they will sell in the existing state of the market. Yet, if casks went out of use and fell in price, his staves would follow suit,— the value of the means of production thus proving its dependence on the value of the finished product.

On the other hand, it will be said that, as a matter of experience, we find the value of goods rising or falling with their "cost." Now, the cost is nothing but the total of the "productive goods," labor, capital, and any other outlay which must be expended to furnish a certain product. On this, it is to be remarked that "identity of cost and value" is only another phrase for the identity of the value of the means of production with that of the product, without any invidious indication of precedence. Popular language, however, too often suggests that the value of the product is *determined by* the cost of production, whereas the truth (according to our authors) is that the value of the "cost-goods" is determined by the value of the product. Our authors differ both from the "labor theory," which refers all value to cost and all cost to labor, and from the "Dualistic"* or Ricardian theory, which alleges two distinct sources of value (usefulness and cost), and refers to the one whatever it cannot explain by the other. But, as the statement of a mere tendency or approximation, the doctrine that value is identical with cost is, they admit, substantially true in the case of freely produced articles, any discrepancies in their case between cost and

* Böhm-Bawerk, in *Jahrbücher*, xiii., N. F., p. 61.

value being occasioned by the fact that production takes time,* and, between the first step in production and the last result of it, men and things may have altered. The wants of men, the comparative quantities of goods in the market and men's views about them, may change; and then their estimate of the subjective value of the goods employed in production will change also. Such discrepancies are beyond any fixed rule. There is, however, another discrepancy, which is permanent and regular; and it is the discrepancy caused by the mere length of time taken in the conversion of the means of production into the finished product. The value of the means of production in the remote ranks will lag steadily behind the value of the finished product, in proportion to the length of time taken in the passage from the former to the latter. In this kind of discrepancy, Böhm-Bawerk sees the real key to the phenomenon of interest on capital, though he has not as yet given his views to the public at length on this point. But, in the discussion of cost, he asks us to neglect both of the above kinds of discrepancy.

Let us now retract the assumption which we made,† that the given means of production concern only one kind of product. In most cases, the goods of second, third, or fourth rank, in the regress of the economic observer, may be capable of producing not one kind of article only, but a number of alternatives. Iron may be made into nails or ploughshares or fire-grates or fifty other things. The question to be asked is, Which of the alternative products determines the value of the common means of production?

Suppose a sample of G^2 to produce either A or B or C, and the final utility of A to be 100, of B 120, of C 200. The final utility of their common means of production (a sample of G^2) will be the lowest,‡—namely, 100; for,

* *Cf.* Menger, *Volkswirthschaftslehre*, pp. 40 to 45. † Above, p. 19.

‡ That is, will be *according* to the lowest, allowance being made for the discrepancy of time and for the other co-operating elements,—labor, etc. Böhm-Bawerk, *Jahrbücher*, xiii., N. F., p. 538.

if we had only two samples of G^2 and had therefore to lose one of the three,—A, B, and C,—it would be A, as the lowest, that would be sacrificed, and it is therefore *its* existence that depends on a third sample of G^2. Therefore, a G^2, when it can be economically used to produce A at all, is in value to us as A, and not as B or C. In the same way, it might be shown that, of several alternative uses of a G^3, the lowest, or that which leads to the lowest actually valued utility, will determine the value of G^3. It appears, then, that the value of the least valuable ultimate product (of those products economically produced at all) determines the value of the antecedent means of production from the lowest rank to the highest.

We have next to ask what determines the value of the two other alternative products, B and C. If their own final utility, then their value would be greater than that of their means of production, which has been shown to become 100. But, as a B or a C, if lost, can be replaced by a substitute made from G^2 at the sacrifice of A, the said B and C will (by reasoning given in an earlier stage of this discussion) fall to the value of G^2; *i.e.*, to 100 instead of 120 and 200. In fact, to our surprise, we find that, in the case of replaceable alternatives, it is (in all instances but one) the cost that determines the degree of value, after all; and the common identification of cost and price is therefore (in their case only) perfectly justified.* It is an "alien" final utility that determines their value; and the alien utility in this case is that of an article which rules the value, also, of the cost-goods. Their value is therefore the same as that of their cost-goods. Though the road is roundabout, the point reached is the same as in the old Ricardian doctrine. Of freely producible goods, it is really as nearly true to say their cost determines their value as to say the west wind causes the rain.†

* Compare above, p. 11.

† Böhm-Bawerk, *Kapital und Kapitalzins*, i. p. 442.

Let us now apply the doctrine to the value that "dwells not in particular will," namely, to Objective Value in Exchange and to Price (whether in money or in other goods). These last result, as we have seen, from the subjective valuations of the finished product by the consumers; and, in their turn, they determine the demand, which is confronted by the stocks of producers as the supply. The market selling price results from the competition of subjective valuers, as already described.

Now, in each case, the height of the market price determines the height of the *subjective* value in exchange, and the value of the least valuable of the actually sold products determines the subjective value of the means of production. Each producer will subjectively value his means of production — say, iron — according to the market price of the article he makes out of it. One producer will value it, say, at 30*s*., another at 40*s*., another at 80*s*. a ton. With these valuations, they go to market. The *extent* of their demand is in proportion to the expected sale of their own goods. The *intensity* of their demand is in proportion to their several valuations above mentioned. No one will give more than the price he hopes to get for his article. The extremes would be, say, 2*s*. and 20*s*. The supply would be the stocks of iron from the mines, which will pass to the strongest buyers at a price between the estimate of the weakest of the said strongest and the estimate of the would-be buyer that just fails to be an actual buyer. The estimates in a great modern market would be so accurate that we may say the price is equal to the estimate of the lowest buyer. Now, as the lowest buyer's estimate depends on the price of his own article, the said article is the limiting article (or *Grenzprodukt*), the least valuable of the uses to which iron can, in given circumstances, be economically put at all. But for all goods above that lowest there is an inducement to makers to increase their supplies; and, the

more this is done, the lower sinks the point where supply and demand balance each other, till at last, in the case of the next lowest sellers, the price goes down to the limiting point, where it ceases to be profitable. This is how all prices tend to be identical with cost in the case of freely producible goods.

Such is, in outline, the theory of the Austrian school. To readers not familiar with its by-paths, it suggests some obstinate questionings. Those discussions of the relation of wants and the subject of wants to the means of satisfaction seem too easily apt (unless confined within rigid limits) to convert economical discussion into psychological. Even Böhm-Bawerk, who considers that the line of demarcation can be easily drawn, does not, in practice, avoid a blending of psychology with economics. A utilitarian psychology and ethics have colored his whole theory, as they colored that of Jevons. He makes the possibility of the doctrine of final utility to depend on the commensurability of pains and pleasures. He makes the individual subject the sole judge of what is his final utility, and of what to him, therefore, is "economical," or the opposite.* But this is very different from the hypothesis of the older economists, whose "economical man" was gifted with enlightened, as distinguished from unenlightened, self-interest. And it is remarkable that, as soon as the Austrian economist reaches their problem (objective value in exchange), he adopts their assumption, and tells us that his theory of exchanges is true of men who are pursuing their own gain with prudence and knowledge. There was surely no need to throw the "rays of utilitarian darkness" into the subject at all. Such a table of wants as is given above (page 8) might be drawn up by philosophers of widely different schools or by ordinary economists with-

* Böhm-Bawerk, *Jahrbücher*, xiii., N. F., pp. 13, 50, etc. Yet he speaks, on page 55, of a "true" as distinguished from an apparent value.

out any philosophy at all. To introduce the philosophical theory that all motives are pleasures or pains, and each individual is the supreme judge of his own ends, is to cast doubt on the existence of any objective truth in the whole matter, and to make the very distinction between economy and waste an incomprehensible riddle. It may be added that, to those who believe that economic processes can and ought to be studied separately from philosophy, even though the economists' results need to be complemented and supplemented by the sublimer study, the very use of philosophical terms for economical facts seems unnecessary and inexpedient.

But, looking now at the general conclusions of the Austrian theorists, we may observe that they involve no "Copernican change of attitude," or, in other words, no complete revolution in economic doctrine. The seeds of the new views may be found in the old economists.* Not to go back to Lauderdale and Malthus, we find, in such passages as the fifteenth chapter of Mill's Third Book, for example, a full acknowledgment of the important part played by "subjective value" in economical processes: —

> If one thing [says Mill, speaking of the Measure of Value], either by itself or by what it would purchase, could maintain a laboring man for a day, and another could maintain him for a week, there would be some reason in saying that the one was worth, for ordinary human uses, seven times as much as the other. But this would not measure the worth of the thing to its possessor for his own purposes, which might be greater to any amount, though it could not be less, than the worth of the food which the thing would purchase.

And, in the passage immediately following this (the well-known section on Joint Cost of Production), Mill distinctly speaks of the "law of supply and demand" as "a law anterior to cost of production and more fundamental." In an earlier passage, he had said that "the utility of a

*Professor Böhm-Bawerk (who has been kind enough to read the manuscript of this paper) points out that he has amply acknowledged this in his second paper on Value, *Jahrbücher*, xiii., N. F., p. 502.

thing in the estimation of a purchaser is the extreme limit of its exchange value." (Book III. chap. ii. § 1.)

The idea so common in economical writers, from Lauderdale * down to J. S. Mill, that "wealth" consists of "desirable things limited in quantity," gains its clearest interpretation when wealth is understood as a sum total of things subjectively valuable, in the sense defined by the Austrian school. Nothing but this will save such a saying as, "Though air is not wealth, mankind are much richer by obtaining it gratis," from self-contradiction.

The service, therefore, that Jevons and the Austrians have rendered to economic theory seems to be, not the first introduction into it of "subjective value" (as if that were a new thing), but the clearer definition of it. "Final utility" is rather a definition of value than an explanation of its causes, and the charm of a new term (itself in need of explanation) seems to have led them to exaggerate its merits at the expense of more vital parts of their own doctrine. Even by their own accounts, the notion of "final utility" throws light rather on the nature than on the causes of value; and, as with wealth, so with value, the causes are our real difficulty. The service of the school is to have shown, not merely that "subjective value" means final utility, but that the causes of subjective value are the causes of all economic value whatever, whether value in use or value in exchange. Jevons himself makes practical acknowledgment of this when, in his *Primer* (1878), he gives the causes of value in great detail, but says nothing at all of "final utility."

Again, it may be doubted whether the Austrian economists have fairly met the challenge made by their critics to show the application of their doctrine to the modern world of exchanges.† Böhm-Bawerk (in his reply to

* On *Public Wealth*, p. 57.

† *Emil Sax has applied it to Taxation in his Grundlegung der theoretischen Staatswirthschaft.* See *Quarterly Journal of Economics*, July, 1887, p. 504.

Dietzel's review of Wieser's book) * does not deny their obligation to do this, and the whole of his second treatise (on Objective Value) may be considered an attempt to fulfil the obligation. At the same time, the criticisms passed by him, by Menger, and by Wieser on such views as the "cost theory," and especially the "labor theory," of value, masterly as they often are, are, upon the whole, such as might have been used by economists like Wagner or Cohn, who differ from them on what they treat as the main question. There are signs that the shrewdest of the socialists themselves are ceasing to stake their political and social plans on the too vulnerable theories of Robertus and Marx, and that they would hardly dispute this part of the ground any longer. In any case, such propositions as that of Jevons, that "labor once spent has no influence on the future value of any article," are so far from peculiar to the school that, as Wieser points out, they might be deduced from the reasonings of Mill himself.† The very idea of final utility might perhaps have been suggested by the Ricardian doctrine that Rent is determined by the fertility of the least fertile soil in profitable cultivation, and we might speak of the Ricardian law of rent as the principle of *final fertility*. Its affinity with final utility has, in fact, saved the doctrine of Rent from alteration at the hands of Jevons or the Austrian economists.

In regard to the doctrine of Capital, Interest, Profits, and Wages, Böhm-Bawerk has followed Menger's view of Capital (as above mentioned) rather than the narrower view of Jevons, who confines it exclusively to means of maintaining laborers. The relation of Labor, Wages, and Profits to Value is treated incidentally in the book on *Theories of Interest*. In the second paper on Value,

* "Theory of Subjective Value," *Jahrbücher*, xiii., N. F., p. 77, seq. See, for Dietzel's review, *Jahrbücher*, xi. pp. 161, 162.

† Wieser, pp. 113, 114; Mill, Book II. chap. xvi. § 5. *Cf.* what is said of Von Thünen's doctrine of Rent by Böhm-Bawerk, *Jahrbücher*, xiii. p. 505.

we are expressly told * that, in the analysis there given, abstraction has been made of labor, tools, and industrial processes. The case, in fact, has been presented abstractly or under simplified conditions; and, if we are to see the whole truth about Objective Value in Exchange, we must recur to the views expressed by the author in the larger work,† where we are told that the amount and duration of the capital advanced (as distinguished from the labor bestowed) in production prevent value from any exact coincidence with cost in any case whatsoever. Ricardo's qualifications of his "labor theory" are described as of undoubted truth and importance. Ricardo rightly saw that the proportions in which fixed and circulating capital enter into cost will seriously affect value in exchange. Now, it would strengthen the position of Professor Böhm-Bawerk and his colleagues very considerably if he could explain, not critically, but positively, the precise effect of these and other modifications on his own theory of value in exchange. We should like to know, for example, what the value of labor is, when considered as a question of the objective value of services, which our author expressly allows to be "goods," ‡ and therefore to be constituents in a complementary group of means of production. Does cost in wages play the same secondary part in objective value in exchange as cost in material goods? Would he subscribe to the doctrine of Jevons and Walker,— that wages are a residuum remaining after deduction of certain fixed elements, and depending essentially, therefore, on the amount of the produce? Would he regard profits as a fixed element at all, or (when distinguished from interest and "wages of superintendence") as entering into cost at all?

* *Jahrbücher*, xiii. p. 538, n. *Cf.* above, p. 68.

† *Kapital und Kapitalzins*, i. pp. 404–407.

‡ *Rechte und Verhältnisse vom Standpunkte der volkswirthschaftlichen Güterlehre.* 8vo. pp. 158. Innsbrück, 1881. See pp. 31, 57, 61.

The only writer of the school who has gone at any length into the above difficulties is Professor Emil Sax, of Prague, whose book on the economics of the State * includes an account of general economic principles. His views, in the main, are those of Böhm-Bawerk; but he will not allow that "services" are goods, or that labor is a service. When we say that "wages" are paid, we mean (according to Sax) simply that the capitalist purchases the workman's part of the product while the product is still a-making.† Labor is not a commodity; neither are wages "a recompense for the services of the workman." They are "the price of the workman's share of the commodity produced; it is his own product that constitutes his wages." Contract-wages depend on a calculation (made in advance) of the probable price of the product. "Cost of production" means the value of the total of capitalized goods expended in the production, as compared with the value of the product itself when finished. Without value (objective market value in exchange) there would be no trustworthy means of comparing present sacrifice and future return, or (if you like) past sacrifice and present return.‡ The employer, therefore, thinks entirely of the market price which he is likely to get for his finished article. The subjective value to himself of the said article does not come into the calculation; and hence it is that, roughly speaking, like work has like wages. It is otherwise with "services," — *e.g.*, of professional men,— where the subjective value to the person served is almost the ruling element in the price, and the payments are therefore very various.§ There, too, the payments are made by the served to the

* *Grundlegung der theoretischen Staatswirthschaft*, Vienna, 1887, which should be read in conjunction with the author's *Wesen und Aufgaben der Nationalökonomik*, 1884. For the general drift, see *Quarterly Journal of Economics*, July, 1887, p. 504.

† *Staatswirthschaft*, p. 230, note; *cf.* 242, 247, 322, 333.

‡ *Ibid.*, pp. 328, 330. § *Ibid.*, 242.

server, in goods made by the labor of the served or of his workmen; but, in hired labor for wages, the worker really receives not another's, but his own product, in the garb of its price.*

The relation of employer and employed is due to the institution of property, enabling me as it does to turn even the objects of immediate consumption, such as food, into means of procuring new goods: it embraces, in this way, "Acquisition" by means of the production of others, in addition to "Production" of my own. There are persons, for example, who want the food, but have no goods at the moment to give for it in exchange. Accordingly, I give them the food on condition that at some future time they shall make and hand over to me other goods for the satisfaction of my future wants. Self-interest demands that the amount of the required future equivalent shall be at least great enough to balance the comparatively greater (subjective) value of the food, as a present, in contrast with a future, means of satisfaction. Capital, therefore, besides becoming the means of production, may without losing its nature be devoted to the present satisfaction of present wants; that is, the present wants of others, who will then produce for my future benefit. "Means of production" should, strictly speaking, apply only to the capital laid out otherwise than in wages; but the extension of the phrase to the latter case is justifiable, for, if I get two sacks of corn a year for every one sack that I have given in wages, it is just as if I had myself used one for seed and reaped two at the harvest. As a rule, the workmen having little or no property are obliged to purchase the means of living by selling me in advance their share of the product. Their dependent situation is due, like payment of interest on capital, to the existence of private property.†

Professor Sax does not enter into the further details of

* *Staatswirthschaft*, 246, 247, note; *cf.* 242. † *Ibid.*, pp. 322, 323.

distribution. He refers (in the manner of ordinary economists) to the competition of workmen with each other and to their standard of living as affecting the amount of their share in the product, and (in the manner of the socialism which he disclaims) to "the necessary labor" as an item in the calculations about any production.* But, like his leader Menger, he bids us look for further light to the forthcoming work of Böhm-Bawerk. The Innsbrück Professor is therefore at the present moment the foremost champion of the Austrian School of economics. To procure a favorable hearing, the school must apply its principles without reserve to the problems of distribution as they meet us in modern countries. This is one of the services for which we look to the long promised second volume on *Theories of Interest.*

JAMES BONAR.

* *Staatswirthschaft*, pp. 334, 335.